# New York State Department of Transportation General Bridge Inspection Report

Inspection Date: April 22, 2021

### Structure Information

 BIN: 1031701
 Region: 03 - SYRACUSE

 Feature Carried:
 81I 81I33033050
 County: ONONDAGA

Feature Crossed: CR 20-CHURCH STREET Political Unit: Village of NORTH SYRACUSE

Orientation: 2 - NORTHEAST Approximate Year Built: 1959

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: New York State Department of Transportation

General Type Main Span: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp Number of Spans: 3

## **Postings**

Posted Load Matches Inventory: Yes Posted Vertical Clearances Match Inventory: Yes

Posted Load in field: Not Posted Inventory On: Not Posted Inventory Under: Not Posted

## Number of Flags Issued

Red PIA: 0

Red: 0
Yellow: 0
Safety PIA: 0

## New York State Inspection Overview

General Recommendation: 5

### Federal NBI Ratings

NBI Deck Condition:6NBI Channel Condition:NNBI Superstructure Condition:6NBI Culvert Condition:N

NBI Substructure Condition: 6

### Action Items

Non-Structural Condition Observations noted: YES

Vulnerability Reviews Recommended: NO

Diving Inspection Requested: NO Further Investigation Requested: NO

## Inspector & Reviewer Signature Information

Inspection Signature:Dennis Conley, P.E. 071469-1Date: June 23, 2021Review Signature:Dave Hann, P.E. 084065-1Date: June 23, 2021Processed by:Timothy SnowDate: June 24, 2021

Report Printed: June 25, 2021 1:50:57 PM

## Special Emphasis Inspection

| Special Emphasis Detail                     | "Other" Special Emphasis Detail Description | Hands-On Insp<br>Performed | Hands-On Inspection Note                        |
|---|---|----------------------------|---|
| AASHTO Category D, E, and E' welded details |   | Yes                        | 100% HANDS-ON INSPECTION PERFORMED AS REQUIRED. |

### Additional Information

### **Overloads Observed**

No overload vehicles observed during this inspection.

## **Notes to Next Inspector**

Find BIN plate on Begin stem.

## **Improvements Observed**

None

## **Pedestrian Fence Height**

None

### **Snow Fence**

Yes

### **Bin Plate Condition**

Damaged

### **Scour Critical Rating**

N - Bridge not over waterway.

## Field Notes

| Staff Present During Inspection |       |              |  |  |  |  |  |  |
|---------------------------------|-------|--------------|--|--|--|--|--|--|
| Name                            | Title | Organization |  |  |  |  |  |  |
| A.NORDIAN                       | WZTC  | CONTRACTOR   |  |  |  |  |  |  |
| G.VANESS                        | EIT   | NYSDOT       |  |  |  |  |  |  |
| H.ALMUTT                        | WZTC  | CONTRACTOR   |  |  |  |  |  |  |
| R.KIEFEN                        | WZTC  | CONTRACTOR   |  |  |  |  |  |  |

| General Equipment Required for Inspection* |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| Access Type                                |  |  |  |  |  |  |
| 13 - Walking                               |  |  |  |  |  |  |
| 15 - Extension Ladder                      |  |  |  |  |  |  |
| 19 - Up to 30 Foot Lift                    |  |  |  |  |  |  |
| 28 - Lane Closure Without Shadow Vehicle   |  |  |  |  |  |  |

<sup>\*</sup> For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

| Detailed Time & Weather Conditions |          |           |          |                    |  |  |  |  |  |  |
|------------------------------------|----------|-----------|----------|--------------------|--|--|--|--|--|--|
| Field Date                         | Arrival  | Departure | Temp (F) | Weather Conditions |  |  |  |  |  |  |
| 04/22/2021                         | 09:00 AM | 11:00 AM  | 28       | snow               |  |  |  |  |  |  |

| Inspection Times (hours)                                    |    |
|---|----|
| Time required for travel, inspection and report preparation | 10 |
| Lane closure usage  | 2  |
| Railroad flagging time                                      | No |

## **Element Quantities**

| Element Assessment Summary Table           |                |                     |      |      |      |      |      |  |  |
|--|----------------|---------------------|------|------|------|------|------|--|--|
| Element                                    | Total Quantity |                     | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |  |  |
| 12 - Reinforced Concrete Deck              | 6584           | SQUAR<br>E_FOO<br>T | 1813 | 4694 | 77   |      | 0    |  |  |
| 29 - Steel Deck with Concrete Filled Grid  | 616            | SQUAR<br>E_FOO<br>T |      | 616  |      |      | 0    |  |  |
| 107 - Steel Open Girder/Beam               | 1041           | ft                  |      | 1039 | 2    |      | 0    |  |  |
| 113 - Steel Stringer                       | 196            | ft                  |      | 196  |      |      | 0    |  |  |
| 152 - Steel Floor Beam                     | 112            | ft                  |      | 112  |      |      | 0    |  |  |
| 205 - Reinforced Concrete Column           | 6              | each                |      | 3    | 3    |      | 0    |  |  |
| 220 - Reinforced Concrete Pile Cap/Footing | 292            | ft                  |      |      |      |      | 292  |  |  |
| 227 - Reinforced Concrete Pile             | 88             | each                |      |      |      |      | 88   |  |  |
| 234 - Reinforced Concrete Pier Cap         | 92             | ft                  |      | 58   | 34   |      | 0    |  |  |
| 302 - Compression Joint Seal               | 196            | ft                  |      | 82   | 114  |      | 0    |  |  |
| 310 - Elastomeric Bearing                  | 42             | each                |      | 42   |      |      | 0    |  |  |
| 321 - Reinforced Concrete Approach Slab    | 2880           | SQUAR<br>E_FOO<br>T |      | 2855 | 25   |      | 0    |  |  |
| 330 - Metal Bridge Railing                 | 302            | ft                  | 60   | 222  | 20   |      | 0    |  |  |
| 510 - Wearing Surfaces                     | 6904           | SQUAR<br>E_FOO<br>T | 4005 | 2209 | 690  |      | 0    |  |  |
| 515 - Steel Protective Coating             | 9275           | SQUAR<br>E_FOO<br>T | 1362 | 6302 |      | 1611 | 0    |  |  |
| 800 - Erosion or Scour                     | 368            | ft                  | 23   | 333  | 12   |      | 0    |  |  |
| 811 - Curb                                 | 302            | ft                  | 75   | 218  | 9    |      | 0    |  |  |
| 830 - Secondary Members                    | 3              | each                |      | 3    |      |      | 0    |  |  |
| 831 - Steel Beam End                       | 42             | each                |      | 40   | 2    |      | 0    |  |  |
| 850 - Backwall                             | 156            | ft                  |      | 132  | 24   |      | 0    |  |  |
| 851 - Abutment Pedestal                    | 14             | each                |      | 14   |      |      | 0    |  |  |
| 852 - Pier Pedestal                        | 28             | each                | 24   | 3    | 1    |      | 0    |  |  |
| 853 - Wingwall                             | 26             | ft                  | 13   |      | 13   |      | 0    |  |  |

| Element Assessment by Span                             |         |       |     |    |    |  |    |  |
|--|---------|-------|-----|----|----|--|----|--|
| Element** Total Quantity Unit CS-1 CS-2 CS-3 CS-4 CS-5 |         |       |     |    |    |  |    |  |
|  | Span No | umber | : 1 |    |    |  |    |  |
| BA220 - Reinforced Concrete Pile Cap/Footing           | 83      | ft    |     |    |    |  | 83 |  |
| BA227 - Reinforced Concrete Pile                       | 23      | each  |     |    |    |  | 23 |  |
| BA302 - Compression Joint Seal                         | 49      | ft    |     | 37 | 12 |  | 0  |  |
| BA310 - Elastomeric Bearing                            | 7       | each  |     | 7  |    |  | 0  |  |

| Element**                                    | Total Quantity | ·                        | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|--|----------------|--------------------------|------|------|------|------|------|
| 515 - Steel Protective Coating               | _              | SQUAR<br>E_FOO           |      | 5    |      | 2    | 0    |
| BA321 - Reinforced Concrete Approach Slab    | 1440           | T<br>SQUAR<br>E_FOO<br>T |      | 1440 |      |      | 0    |
| BA800 - Erosion or Scour                     | 83             | ft                       |      | 77   | 6    |      | 0    |
| BA831 - Steel Beam End                       | 7              | each                     |      | 7    |      |      | 0    |
| BA850 - Backwall                             | 78             | ft                       |      | 65   | 13   |      | 0    |
| BA851 - Abutment Pedestal                    | 7              | each                     |      | 7    |      |      | 0    |
| BW220 - Reinforced Concrete Pile Cap/Footing | 15             | ft                       |      |      |      |      | 15   |
| BW227 - Reinforced Concrete Pile             | 3              | each                     |      |      |      |      | 3    |
| BW800 - Erosion or Scour                     | 15             | ft                       | 10   | 5    |      |      | 0    |
| BW853 - Wingwall                             | 13             | ft                       | 8    |      | 5    |      | 0    |
| PR205 - Reinforced Concrete Column           | 3              | each                     |      | 2    | 1    |      | 0    |
| PR220 - Reinforced Concrete Pile Cap/Footing | 48             | ft                       |      |      |      |      | 48   |
| PR227 - Reinforced Concrete Pile             | 18             | each                     |      |      |      |      | 18   |
| PR234 - Reinforced Concrete Pier Cap         | 46             | ft                       |      | 36   | 10   |      | 0    |
| PR302 - Compression Joint Seal               | 49             | ft                       |      |      | 49   |      | 0    |
| PR310 - Elastomeric Bearing                  | 14             | each                     |      | 14   |      |      | 0    |
| 515 - Steel Protective Coating               | 14             | SQUAR<br>E_FOO<br>T      |      | 4    |      | 10   | 0    |
| PR800 - Erosion or Scour                     | 96             | ft                       |      | 96   |      |      | 0    |
| PR831 - Steel Beam End                       | 7              | each                     |      | 7    |      |      | 0    |
| PR852 - Pier Pedestal                        | 14             | each                     | 12   | 2    |      |      | 0    |
| 12 - Reinforced Concrete Deck                | 2057           | SQUAR<br>E_FOO<br>T      |      | 2020 | 37   |      | 0    |
| 510 - Wearing Surfaces                       | 2282           | SQUAR<br>E_FOO<br>T      | 1370 | 684  | 228  |      | 0    |
| 29 - Steel Deck with Concrete Filled Grid    | 308            | SQUAR<br>E_FOO<br>T      |      | 308  |      |      | 0    |
| 107 - Steel Open Girder/Beam                 | 347            | ft                       |      | 347  |      |      | 0    |
| 515 - Steel Protective Coating               | 2270           | SQUAR<br>E_FOO<br>T      | 1362 | 681  |      | 227  | 0    |
| 113 - Steel Stringer                         | 98             | ft                       |      | 98   |      |      | 0    |
| 515 - Steel Protective Coating               | 200            | SQUAR<br>E_FOO<br>T      |      | 180  |      | 20   | 0    |
| 152 - Steel Floor Beam                       | 56             | ft                       |      | 56   |      |      | 0    |
| 515 - Steel Protective Coating               | 170            | SQUAR<br>E_FOO<br>T      |      | 153  |      | 17   | 0    |
| 330 - Metal Bridge Railing                   | 100            | ft                       | 60   | 20   | 20   |      | 0    |
| 515 - Steel Protective Coating               | 480            | SQUAR<br>E_FOO<br>T      |      | 240  |      | 240  | 0    |
| 811 - Curb                                   | 100            | ft                       | 75   | 25   |      |      | 0    |
| 830 - Secondary Members                      | 1              | each                     |      | 1    |      |      | 0    |

| Element**                                    | Total Quantity | Unit                | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|--|----------------|---------------------|------|------|------|------|------|
|  | Span N         |                     |      | _    |      |      |      |
| PR205 - Reinforced Concrete Column           | 3              | each                |      | 1    | 2    |      | 0    |
| PR220 - Reinforced Concrete Pile Cap/Footing | 48             | ft                  |      |      |      |      | 48   |
| PR227 - Reinforced Concrete Pile             | 18             | each                |      |      |      |      | 18   |
| PR234 - Reinforced Concrete Pier Cap         | 46             | ft                  |      | 22   | 24   |      | 0    |
| PR302 - Compression Joint Seal               | 49             | ft                  |      |      | 49   |      | 0    |
| PR310 - Elastomeric Bearing                  | 14             | each                |      | 14   |      |      | 0    |
| 515 - Steel Protective Coating               | 14             | SQUAR<br>E_FOO<br>T |      | 4    |      | 10   | 0    |
| PR800 - Erosion or Scour                     | 96             | ft                  |      | 96   |      |      | 0    |
| PR831 - Steel Beam End                       | 14             | each                |      | 12   | 2    |      | 0    |
| PR852 - Pier Pedestal                        | 14             | each                | 12   | 1    | 1    |      | 0    |
| 12 - Reinforced Concrete Deck                | 2470           | SQUAR<br>E_FOO<br>T | 1813 | 617  | 40   |      | 0    |
| 510 - Wearing Surfaces                       | 2340           | SQUAR<br>E_FOO<br>T | 1334 | 772  | 234  |      | 0    |
| 107 - Steel Open Girder/Beam                 | 347            | ft                  |      | 345  | 2    |      | 0    |
| 515 - Steel Protective Coating               | 2293           | SQUAR<br>E_FOO<br>T |      | 2064 |      | 229  | 0    |
| 330 - Metal Bridge Railing                   | 102            | ft                  |      | 102  |      |      | 0    |
| 515 - Steel Protective Coating               | 700            | SQUAR<br>E_FOO<br>T |      | 350  |      | 350  | 0    |
| 811 - Curb                                   | 102            | ft                  |      | 96   | 6    |      | 0    |
| 830 - Secondary Members                      | 1              | each                |      | 1    |      |      | 0    |
|  | Span N         | umber               | : 3  |      |      |      |      |
| EA220 - Reinforced Concrete Pile Cap/Footing | 83             | ft                  |      |      |      |      | 83   |
| EA227 - Reinforced Concrete Pile             | 23             | each                |      |      |      |      | 23   |
| EA302 - Compression Joint Seal               | 49             | ft                  |      | 45   | 4    |      | 0    |
| EA310 - Elastomeric Bearing                  | 7              | each                |      | 7    |      |      | 0    |
| 515 - Steel Protective Coating               | 7              | SQUAR<br>E_FOO<br>T |      | 5    |      | 2    | 0    |
| EA321 - Reinforced Concrete Approach Slab    | 1440           | SQUAR<br>E_FOO<br>T |      | 1415 | 25   |      | 0    |
| EA800 - Erosion or Scour                     | 65             | ft                  |      | 59   | 6    |      | 0    |
| EA831 - Steel Beam End                       | 7              | each                |      | 7    |      |      | 0    |
| EA850 - Backwall                             | 78             | ft                  |      | 67   | 11   |      | 0    |
| EA851 - Abutment Pedestal                    | 7              | each                |      | 7    |      |      | 0    |
| EW220 - Reinforced Concrete Pile Cap/Footing | 15             | ft                  |      |      |      |      | 15   |
| EW227 - Reinforced Concrete Pile             | 3              | each                |      |      |      |      | 3    |
| EW800 - Erosion or Scour                     | 13             | ft                  | 13   |      |      |      | 0    |
| EW853 - Wingwall                             | 13             | ft                  | 5    |      | 8    |      | 0    |

| Element**                                 | Total Quantity | Unit                | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|---|----------------|---------------------|------|------|------|------|------|
| PR831 - Steel Beam End                    | 7              | each                |      | 7    |      |      | 0    |
| 12 - Reinforced Concrete Deck             | 2057           | SQUAR<br>E_FOO<br>T |      | 2057 |      |      | 0    |
| 510 - Wearing Surfaces                    | 2282           | SQUAR<br>E_FOO<br>T | 1301 | 753  | 228  |      | 0    |
| 29 - Steel Deck with Concrete Filled Grid | 308            | SQUAR<br>E_FOO<br>T |      | 308  |      |      | 0    |
| 107 - Steel Open Girder/Beam              | 347            | ft                  |      | 347  |      |      | 0    |
| 515 - Steel Protective Coating            | 2270           | SQUAR<br>E_FOO<br>T |      | 2043 |      | 227  | 0    |
| 113 - Steel Stringer                      | 98             | ft                  |      | 98   |      |      | 0    |
| 515 - Steel Protective Coating            | 200            | SQUAR<br>E_FOO<br>T |      | 180  |      | 20   | 0    |
| 152 - Steel Floor Beam                    | 56             | ft                  |      | 56   |      |      | 0    |
| 515 - Steel Protective Coating            | 170            | SQUAR<br>E_FOO<br>T |      | 153  |      | 17   | 0    |
| 330 - Metal Bridge Railing                | 100            | ft                  |      | 100  |      |      | 0    |
| 515 - Steel Protective Coating            | 480            | SQUAR<br>E_FOO<br>T |      | 240  |      | 240  | 0    |
| 811 - Curb                                | 100            | ft                  |      | 97   | 3    |      | 0    |
| 830 - Secondary Members                   | 1              | each                |      | 1    |      |      | 0    |

<sup>\*\*</sup> Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

## Inspection Notes

#### **General Notes**

No bats today. Plans in BIN Folder were reviewed and verified.

### **Element Condition Notes**

2057

Span 1: 12 - Reinforced Concrete Deck

**Condition State 3 Note** 

Referenced Photo(s): 18, 42, 48, 52

Referenced Sketch(es): None

Approximately 30 square feet of the underside of the deck in Bay 1 within 4 feet +/- of the end of the span is map cracked with efflorescence and has approximately 2 square feet of delaminated concrete (Pic#42). Approximately 6 square feet of the underside of the deck in Bay 1 at begin of span is cracked and delaminated (Pic#48&52). Fascia concrete over G1 at Pier 1 Span 2 is spalled 4 inches deep (Pic#18). The condition of the deck is adequately reported with CS note and photos, no deck sketch is required or provided.

Span 1: 12 - Reinforced Concrete Deck-510 - Wearing Surfaces Span 2: 12 - Reinforced Concrete Deck-510 - Wearing Surfaces

Span 2: 12 - Reinforced Concrete Deck-510 - Wearing Surfaces

Span 3: 12 - Reinforced Concrete Deck-510 - Wearing Surfaces

| TQ   | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|------|------|------|------|------|------|
| 2282 | 1370 | 684  | 228  | 0    | 0    |
| 2340 | 1334 | 772  | 234  | 0    | 0    |
| 2282 | 1301 | 753  | 228  | 0    | 0    |

2020

### Common

Referenced Photo(s): 27, 30, 31, 32, 33, 34

CS-5

#### Common

Referenced Photo(s): 27, 30, 31, 32, 33, 34

Referenced Sketch(es): None

Upgrade the CS4 quantity to CS2. The previously down rated asphalt patches have been repaired (Pic#30,31&33) but there are new locations in all three spans with deteriorated patches (Pic#27&34) and there are scattered cracks throughout upto 1/8 inch wide over 10% of the area. There is a 1' wide x 15' long section of deteriorated concrete (Pic#32) along the Left shoulder of span2

Span 1: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating

Span 1: 113 - Steel Stringer-515 - Steel Protective Coating

Span 1: 152 - Steel Floor Beam-515 - Steel Protective Coating

Span 2: 107 - Steel Open Girder/Beam-515 - Steel Protective

Coating

Span 3: 107 - Steel Open Girder/Beam-515 - Steel Protective

Coating

Span 3: 113 - Steel Stringer-515 - Steel Protective Coating

Span 3: 152 - Steel Floor Beam-515 - Steel Protective Coating

| TQ   | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|------|------|------|------|------|------|
| 2270 | 1362 | 681  | 0    | 227  | 0    |
| 200  | 0    | 180  | 0    | 20   | 0    |
| 170  | 0    | 153  | 0    | 17   | 0    |
| 2293 | 0    | 2064 | 0    | 229  | 0    |
| 2270 | 0    | 2043 | 0    | 227  | 0    |
| 200  | 0    | 180  | 0    | 20   | 0    |
| 170  | 0    | 153  | 0    | 17   | 0    |

#### **Condition State 4 Note**

Referenced Photo(s): 2, 3, 8, 9, 10, 12, 13, 14, 15, 16, 46, 47, 49

Referenced Sketch(es): None

The paint has failed on 10% of the overall area of the girders, floor beams, and stringers in all 3 spans allowing corrosion to form with section loss starting in localized areas (Pic#2,3,9,10,12,13,14,15,16,46&49). All layers of the paint have peeled off in large sheets in several areas at the lower webs and bottom flanges (Pic#47).

Span 1: PR205 - Reinforced Concrete Column Span 2: PR205 - Reinforced Concrete Column

| TQ | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|----|------|------|------|------|------|
| 3  | 0    | 2    | 1    | 0    | 0    |
| 3  | 0    | 1    | 2    | 0    | 0    |

#### **Condition State 3 Note**

Referenced Photo(s): 6, 44, 50, 51

Referenced Sketch(es): None

Pier 1 - The left face of Column 3 has a 4 feet high by 2 feet wide hollow sounding cracked area at its base (Pic#44). The right face of Column 3 has several vertical and random 1/16 inch wide cracks but the concrete surrounding the cracks sounds solid.

Pier 2 - Column 1 is vertically cracked and rust stained (Pic#50&51) at the top of its begin face. Column 3 has a 2.5 ft vertical crack at the top of begin face that propagates into the cap beam (Pic#6).

Span 1: PR234 - Reinforced Concrete Pier Cap Span 2: PR234 - Reinforced Concrete Pier Cap

| TQ | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|----|------|------|------|------|------|
| 46 | 0    | 36   | 10   | 0    | 0    |
| 46 | 0    | 22   | 24   | 0    | 0    |

### **Condition State 3 Note**

Referenced Photo(s): 5, 6, 7, 17, 19

Referenced Sketch(es): None

Pier 1 - The cap beam in bay 1 has a 2.5' long crack on its end face and underside (Pic#17) upto 1/8" wide. Under G5 at the end face of the pier cap there is a 4' long long horizontal crack at the bottom corner upto 1/8" wide. Under G6 at the end face of the pier cap there is a 3' long horizontal crack at the bottom corner (Pic#19) upto 1/8" wide.

Pier 2 - The cap beam at the right begin face has a single vertical crack that propagates into Column 3 (Pic#6). Under G6 at the begin face of the pier cap there is a 3 ft long horizontal crack at the bottom corner (Pic#5) upto 1/8" wide. At the begin face under bay 4 there 4' long crack at the bottom corner (Pic#7) upto 1/8" wide. At the underside of cap beam between Columns 2 and 3 there are multiple tight cracks over a 12 ft length. The begin face of the Pier 2 cap beam at the left has been repaired since the last inspection, but map cracking is developing with rust stains.

Span 1: BA302 - Compression Joint Seal Span 1: PR302 - Compression Joint Seal Span 2: PR302 - Compression Joint Seal Span 3: EA302 - Compression Joint Seal

| TQ | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|----|------|------|------|------|------|
| 49 | 0    | 37   | 12   | 0    | 0    |
| 49 | 0    | 0    | 49   | 0    | 0    |
| 49 | 0    | 0    | 49   | 0    | 0    |
| 49 | 0    | 45   | 4    | 0    | 0    |

**Condition State 3 Note** 

Referenced Photo(s): 21, 30, 33, 35

Referenced Sketch(es): None

The joints at Piers 1 and 2 are both leaking moderately full length causing the underside of the joint headers to spall exposing reinforcing and causing deterioration to the elements below. The right half of the joint at Pier 1 has a torn seal. The begin concrete header is spalled 5 ft long by 1 1/2 inch deep right of the center lane (Pic#33) adjacent to the spalled wearing surface. Concrete header of the Pier 2 joint shows spalling along the edges for 20 ft at the right (Pic#30).

Both the Begin (Pic#35) and the End (Pic#21) joint seals have debonded over about 25% of their length and are leaking moderately full length causing the underside of the joint headers to spall exposing reinforcing and causing deterioration to the elements below

|  | TQ  | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|--|-----|------|------|------|------|------|
| Span 1: BA310 - Elastomeric Bearing-515 - Steel Protective Coating | 7   | 0    | 5    | 0    | 2    | 0    |
| Span 1: PR310 - Elastomeric Bearing-515 - Steel Protective Coating | 14  | 0    | 4    | 0    | 10   | 0    |
| Span 1: 330 - Metal Bridge Railing-515 - Steel Protective Coating  | 480 | 0    | 240  | 0    | 240  | 0    |
| Span 2: PR310 - Elastomeric Bearing-515 - Steel Protective Coating | 14  | 0    | 4    | 0    | 10   | 0    |
| Span 2: 330 - Metal Bridge Railing-515 - Steel Protective Coating  | 700 | 0    | 350  | 0    | 350  | 0    |
| Span 3: EA310 - Elastomeric Bearing-515 - Steel Protective Coating | 7   | 0    | 5    | 0    | 2    | 0    |
| Span 3: 330 - Metal Bridge Railing-515 - Steel Protective Coating  | 480 | 0    | 240  | 0    | 240  | 0    |

#### Common

Referenced Photo(s): 1, 11, 13, 23, 29, 36, 38

Referenced Sketch(es): None

The paint has failed on 30% of the bearing components (Pic#23) and 50% of the galvanization has failed on the bridge rail (Pic#29&36) has allowing base metal to corrode in all three spans. The G1 and G7 fascia bearings (Pic#1,11,13&38) have about 70% paint failure.

Span 1: BA321 - Reinforced Concrete Approach Slab Span 3: EA321 - Reinforced Concrete Approach Slab

| IQ   | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|------|------|------|------|------|------|
| 1440 | 0    | 1440 | 0    | 0    | 0    |
| 1440 | 0    | 1415 | 25   | 0    | 0    |

#### Common

Referenced Photo(s): 26

Referenced Sketch(es): None

Concrete approach Slabs are hidden below the asphalt pavement at the beginning and end of the bridge and are assessed on the indicators in the overlay material. The end approach slab adjacent to the joint header shows distress up to 2 ft wide x 15' long at the left half along the edge of the header (Pic#26).

Span 1: 330 - Metal Bridge Railing Span 2: 330 - Metal Bridge Railing Span 3: 330 - Metal Bridge Railing

| TQ  | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|-----|------|------|------|------|------|
| 100 | 60   | 20   | 20   | 0    | 0    |
| 102 | 0    | 102  | 0    | 0    | 0    |
| 100 | 0    | 100  | 0    | 0    | 0    |

#### Common

Referenced Photo(s): 28, 29, 32, 45

Referenced Sketch(es): None

The concrete rail post base is deteriorated over 20% of its length (Pic#28,29&32) behind the curb and there is a 2' x 6" spall (Pic#45) on the Right fascia.

Span 1: BA800 - Erosion or Scour Span 3: EA800 - Erosion or Scour

Condition State 3 Note

Referenced Photo(s): 39

Referenced Sketch(es): None

There is an erosion gully approximately 6 feet wide below G7 at the begin and end abutment. The concrete block pavers in this area are disturbed and eroded down the entire slope due to the presence of the scupper outlets near the begin and end abutments. No footings are exposed.

Span 1: 811 - Curb Span 2: 811 - Curb Span 3: 811 - Curb

| TQ  | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|-----|------|------|------|------|------|
| 100 | 75   | 25   | 0    | 0    | 0    |
| 102 | 0    | 96   | 6    | 0    | 0    |
| 100 | 0    | 97   | 3    | 0    | 0    |

**Condition State 3 Note** 

Referenced Photo(s): 29

Referenced Sketch(es): None

The concrete behind the curb is rated as bridge rail post anchorage. See element 330

Span 1: BA850 - Backwall

| TQ | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|----|------|------|------|------|------|
| 78 | 0    | 65   | 13   | 0    | 0    |

Common

Referenced Photo(s): 37, 40, 43 Referenced Sketch(es): None

The bay4 backwall has been previously repaired and painted (Pic#40). The top of the begin backwall is spalled 3 inches deep by 1 1/2 foot wide by 2.5 feet high on the Right side of G7 (Pic#37) with exposed rebar.

The right side of the begin abutment is assessed as backwall. There are 3 spalls near the top within 6 feet of the right fascia (Pic#43). Each of the spalls are approximately 3 inches deep by 1 foot high by 1 foot wide over a length of 6 ft.

13

The Begin Left structure is assessed as wingwall.

Span 1: BW853 - Wingwall

Condition State 3 Note
Referenced Photo(s): 41

Referenced Sketch(es): None

The Begin Left WW structure is spalled upto 3 inches deep by 8 inches high on its top corner over a 5 feet length. See CS note for element BA853

Span 2: 12 - Reinforced Concrete Deck

| TQ   | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 | ı |
|------|------|------|------|------|------|---|
| 2470 | 1813 | 617  | 40   | 0    |      | C |

**Condition State 3 Note** 

Referenced Photo(s): 8

Referenced Sketch(es): None

There's a 40sf unsound area in bay2 at End span. The condition of the deck is adequately reported with CS note and photos, no deck sketch is required or provided.

Span 2: 107 - Steel Open Girder/Beam

| TQ  | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|-----|------|------|------|------|------|
| 347 | 0    | 345  | 2    | 0    | 0    |

Condition State 3 Note

Referenced Photo(s): 12

Referenced Sketch(es): 5

G1 in Span 2 has 24% lower web section loss over the bearings and 13% overall shear area section loss at Pier 2 (Pic#12). G5 in Span 2 has 27% lower web section loss over the bearings and 16% overall shear area section loss at Pier

CS-5

2. See Section Loss documentation (Sketch#5). CS-5 Span 2: PR831 - Steel Beam End **Condition State 3 Note** Referenced Photo(s): 12 Referenced Sketch(es): 5 G1 in Span 2 has 21% lower web section loss over the bearings at Pier 2 (Pic#12). G5 in Span 2 has 24% lower web section loss over the bearings at Pier 2. See Section Loss documentation (Sketch#5). TQ Span 2: PR852 - Pier Pedestal **Condition State 3 Note** Referenced Photo(s): 4 Referenced Sketch(es): None There is a 12" long vertical crack in pedestal#7 upto 1/8" wide. Span 3: EA850 - Backwall **Condition State 3 Note** Referenced Photo(s): 22, 25 Referenced Sketch(es): None The right 3 feet (Pic#22) and the left 2 feet (Pic#25) of the end backwall is spalled up to 3 inches deep with exposed reinforcing or is cracked/delaminated. The End Left structure is now being assed as WW based on conversation with R3 QC, see CS note for element EW853. Span 3: EW853 - Wingwall **Condition State 3 Note** Referenced Photo(s): 24

Referenced Sketch(es): None

The End Left wingwall has a 1 foot long by 2 inch deep spall at the top corner near the abutment and an 8ft long x 5ft high section of map cracking with efflorescence and rust staining. See CS note for element EA853.

## Non-Structural Condition Observations

Category: ATTACHMENTS - Lighting Quantity: 20 Unit: ft

Referenced Element(s): NONE

Referenced Photo(s): 20 Referenced Sketch(es): NONE

There is hanging conduit in span2 bay5.

## Inspection Photographs

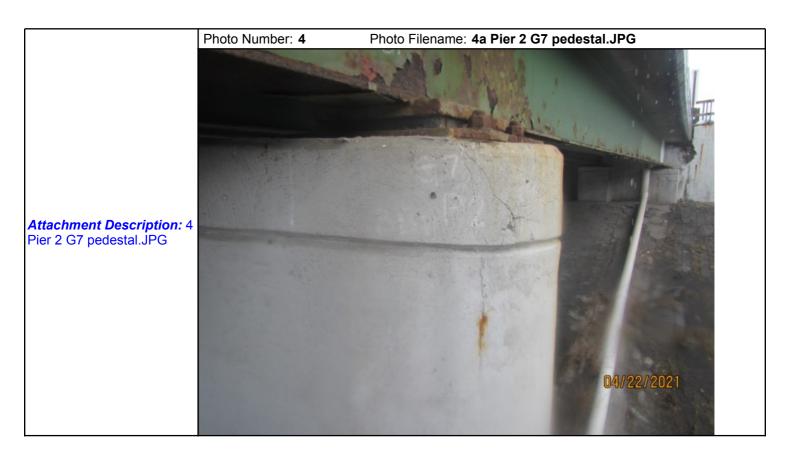


**Attachment Description:** 1 Pier 2 G7 bearings.JPG



**Attachment Description:** 2 Span 2 G7 facing Begin.JPG



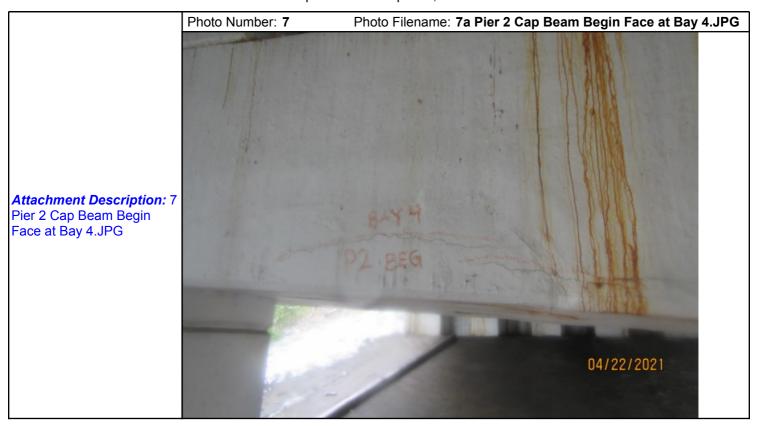


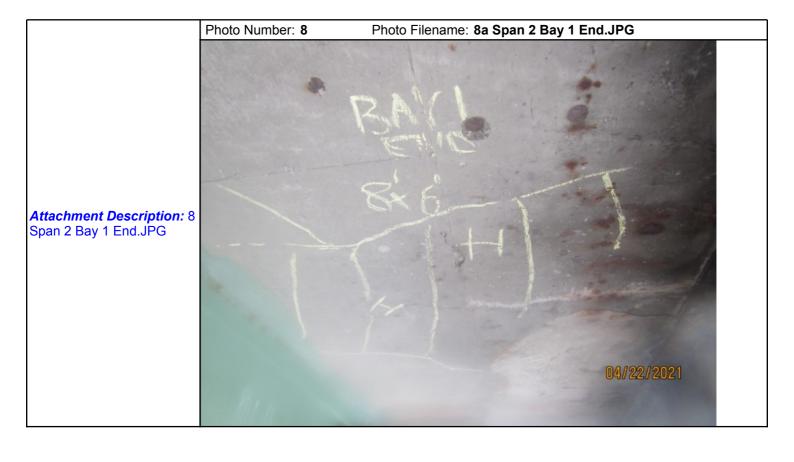


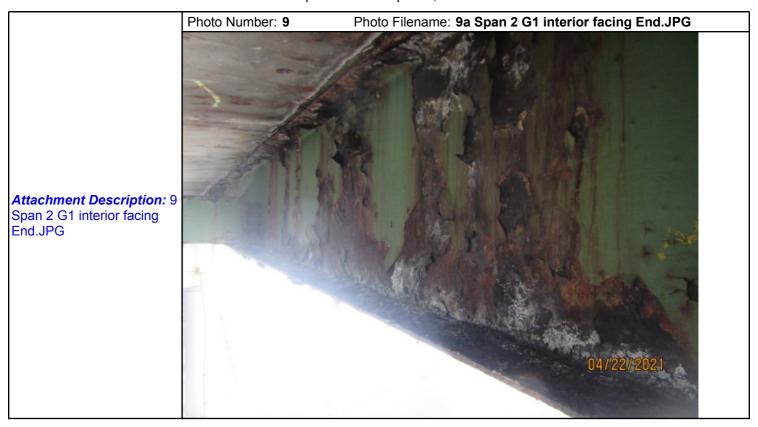
**Attachment Description:** 5 Pier 2 Cap Beam Begin face at G6.JPG

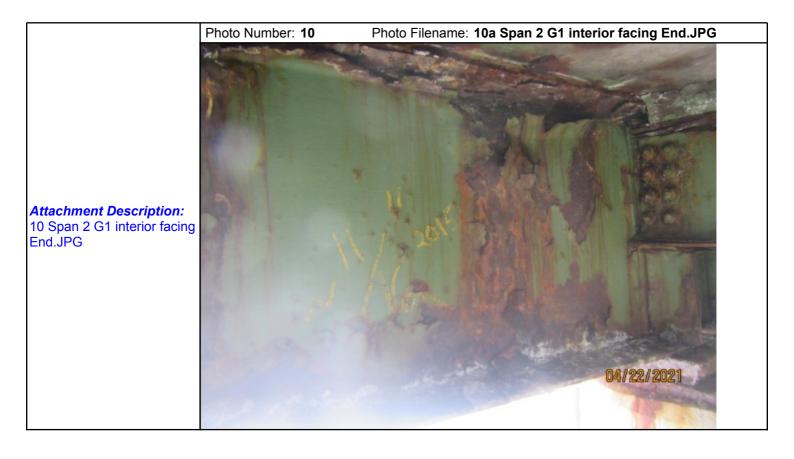


Attachment Description: 6 Pier 2 Column 3 Begin face.JPG











**Attachment Description:** 11 Pier 2 G1 bearings.JPG



**Attachment Description:** 12 Pier 2 G1 beam ends.JPG



**Attachment Description:** 13 G1 over Pier 1.JPG



Attachment Description: 14 Span 1 G1 facing Begin.JPG



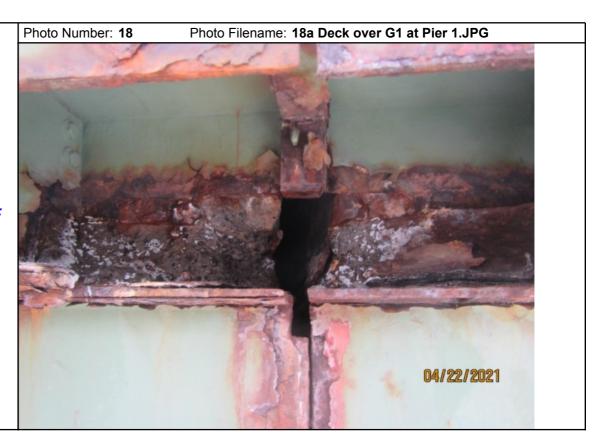
**Attachment Description:** 15 Span 2 G1.JPG



**Attachment Description:** 16 Span 2 G1 interior.JPG



Attachment Description: 17 Pier 1 cap beam End face at Bay 1.JPG



Attachment Description:
18 Deck over G1 at Pier
1.JPG



Attachment Description: 19 Pier 1 cap beam End face at G6.JPG



Attachment Description: 20 Hanging Conduit at Span 2 G5.JPG





**Attachment Description:** 22 End backwall at Right.JPG



**Attachment Description:** 23 End G7 bearing.JPG





**Attachment Description:** 25 End Left backwall.JPG



Attachment Description: 26 End joint facing Right.JPG



**Attachment Description:** 27 Span 3 wearing surface from End Left.JPG



**Attachment Description:** 28 Span 3 Left side facing Begin.JPG



Attachment Description: 29 Span 2 Left side rail facing Begin.JPG



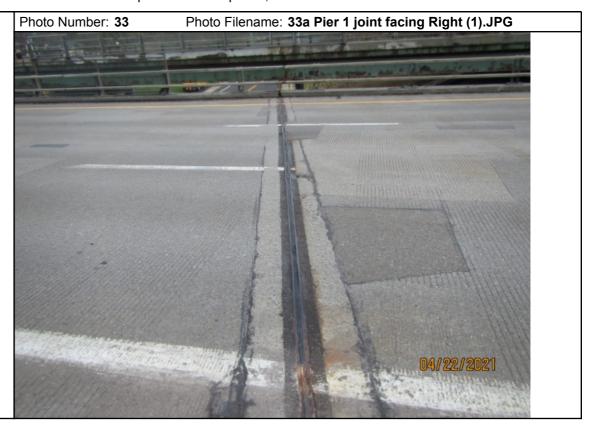
Attachment Description: 30 Pier 2 joint facing Right.JPG



**Attachment Description:** 31 Span 2 wearing surface facing Begin.JPG



Attachment Description: 32 Span 2 Left shoulder facing Begin.JPG



Attachment Description: 33 Pier 1 joint facing Right.JPG



Attachment Description: 34 Span 1 wearing surface facing Begin.JPG



**Attachment Description:** 35 Begin joint facing Right.JPG



**Attachment Description:** 36 Span 1 rail Left side.JPG



Attachment Description: 37 Begin Right backwall.JPG



**Attachment Description:** 38 Begin G7 bearing.JPG

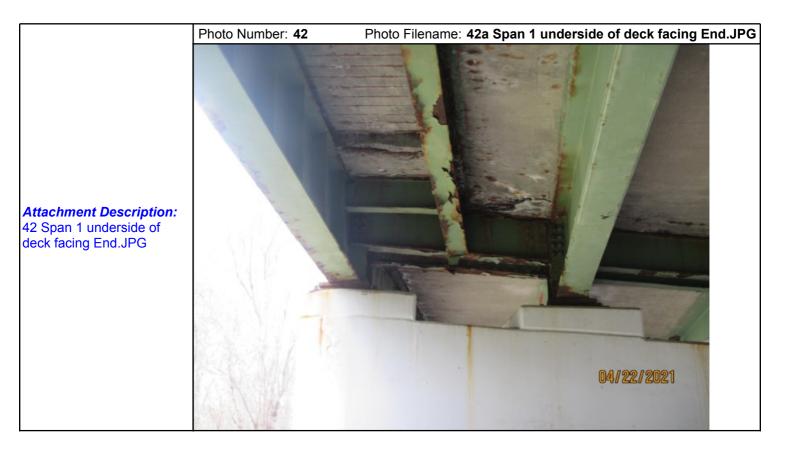


Attachment Description: 39 Begin Right Abutment.JPG



**Attachment Description:**40 Begin abutment backwall Bay 4.JPG







Attachment Description: 43 Begin abutment at Right.JPG



Attachment Description: 44 Pier 1 Column 3 from Left.JPG



**Attachment Description:** 45 Span 1 Right fascia at rail post 5.JPG



**Attachment Description:** 46 Span 1 underside from End Left.JPG



Attachment Description: 47 Span 1 G6 from Begin.JPG



Attachment Description: 48 Span 1 underside of Bay 1 near End.JPG



Attachment Description: 49 Span 2 underside from End Left.JPG



Attachment Description: 50 Pier 2 Column 1 Begin face.JPG



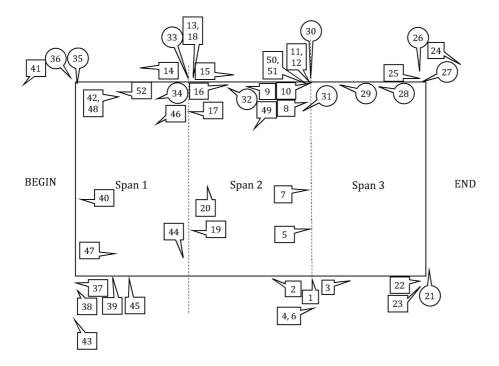
Attachment Description: 51 Pier 2 cap beam Begin face at Left.JPG



Attachment Description: 52 Span 1 Bay 1 underside of deck facing Begin.JPG

## Inspection Sketches

## Sketch Number: 1 Sketch Filename: 1031701 - 2021 Photo Loaction Plan 20BD186.jpg BD186 (5/16) NYS DEPT. OF TRANSPORTATION BIN: 1031701 DATE: 04/22/2021 FEATURE CARRIED: 81133033050 FEATURE CROSSED: CR 20 - Church Street X Photo above deck X Photo below deck



|Created by Universal Document Converter

Sketch Description: 1031701 - 2021 Photo Loaction Plan 20BD186.jpg

Sketch Number: 2 Sketch Filename: 1031701\_21\_Electric Form.jpg

BD 241

NYSDOT BRIDGE INSPECTION REPORT SHEET 1 OF 1

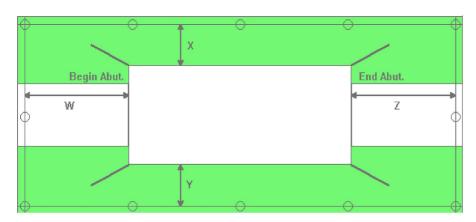
**Electrical Hazard Survey** 

| Insp. Date: | 04/22/2021 |  | BIN: | 1031701 |
|-------------|------------|--|------|---------|
|-------------|------------|--|------|---------|

| Electrical Hazard Classification       |   | Danger!          |
|--|---|------------------|
| (Put an X in appropriate box at right) | х | Warning          |
|  |   | No Lines Present |

| Electrical Hazard Alignments                 |   | Parallel Alignment      |
|--|---|-------------------------|
| (Put an X in all appropriate boxes at right) | Х | Perpendicular Alignment |
|  |   | Diagonal Alignment      |

| Utility Name   | UNKNOWN |
|----------------|---------|
| System Voltage | UNKNOWN |



(For Clarity, You Must Specify English or Metric Units for Offsets)

| Location<br>(Put X where appropriate) | No<br>Lines<br>Present | Above<br>the<br>Deck | Below<br>the<br>Deck | Above<br>and<br>Below | Horizontal<br>Offset | Vertical<br>Offset |
|---------------------------------------|------------------------|----------------------|----------------------|-----------------------|----------------------|--------------------|
| Before Begin Abutment (W)             | х                      |                      |                      |                       |                      |                    |
| To Left of Bridge (X)                 |                        |                      |                      | Х                     | 25 FT                | 20 FT              |
| To Right of Bridge (Y)                | х                      |                      |                      |                       |                      |                    |
| After End Abutment (Z)                | Х                      |                      |                      |                       |                      |                    |

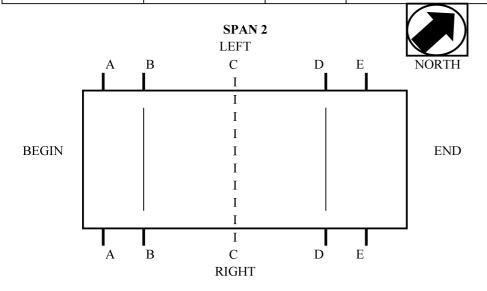
Created by Universal Document Converter

Sketch Description: 1031701\_21\_Electric Form.jpg

Sketch Number: 3 Sketch Filename: a1031701\_21\_ Vertical Clearance.jpg

## HIGHWAY VERTICAL CLEARANCES (FEET) NYSDOL BRIDGE INSPECTION REPORT SHEET 1 OF 1

INSPECTION DATE 4/22/2021 BIN 33 1031701



| YEAR>    | 2017  | 2017   | 2019  | 2019   | 2021  | 2021   |
|----------|-------|--------|-------|--------|-------|--------|
| LOCATION | LEFT  | RIGHT  | LEFT  | RIGHT  | LEFT  | RIGHT  |
| A        | 17'1" | 15'6"  | 17'2" | 15'6"  | 17'2" | 15'6"  |
| В        | 17'0" | 15'6"  | 17'0" | 15'5"  | 17'0" | 15'5"  |
| С        | 16'5" | 14'10" | 16'5" | 14'10" | 16'5" | 14'10" |
| D        | 16'0" | 14'5"  | 16'2" | 14'5"  | 16'2" | 14'5"  |
| Е        | 16'1" | 14'5"  | 16'2" | 14'6"  | 16'2" | 14'6"  |

Note: Lines A-A and E-E are edge of pavement/face of curb. Lines B-B and D-D are edge of lane. Line C-C is centerline of Church Street.

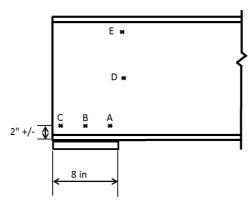
Created by Universal Document Converter

Sketch Description: Copy of 1031701\_21\_ Vertical Clearance.jpg

| ketch Numb                | Jei. 4 Oke                   | etch Filename: LoadRating.jpg           |
|---------------------------|------------------------------|---|
| tegion 3 LoadRatingFieldC | CheckForm                    |   |
| NYSDOT BR                 | RIDGE INSPECTION REPORT      | LOAD RATING FIELD CHECK FORM            |
| SHEET                     | 1 OF 1                       |   |
| BIN:                      | 1031701                      | Insp. Date: 04/22/2021                  |
| Dead Load - N             | Note Changes since last Load | d Rating or state "NONE":               |
|                           |                              |   |
| N                         | IONE                         |   |
|                           |                              |   |
|                           |                              |   |
| Section Loss              | -Note Changes since Last lo  | pad Rating or state "NONE":             |
|                           |                              |   |
| No                        | ONE                          |   |
|                           |                              |   |
| Additional No             | otes:                        |   |
|                           |                              |   |
| N                         | ONE                          |   |
|                           | 0,12                         |   |
| Attachments:              | :                            |   |
|                           |                              |   |
|                           |                              |   |
| Team Leader               | r: Dennis Conley             |   |
|                           |                              | Created by Universal Document Converter |
|                           |                              |   |

Sketch Number: 5 Sketch Filename: 2021a (w\_overall shear).jpg

BIN 1031701 4/22/2021 Girder End Section Loss Documentation at Span 2 Pier 2



GIRDER WEB AT SPAN 2 PIER 2

| Original Beam |           | WF33 x 1 |              |       |       |       | Tw = 0.580 d = 33.00 |       |                    |       |                   |                   |      |
|---------------|-----------|----------|--------------|-------|-------|-------|----------------------|-------|--------------------|-------|-------------------|-------------------|------|
|               |           |          | Bearing Area |       |       |       |                      |       | Overall Shear Area |       |                   |                   |      |
| By/Title      | Date:     | Location | Α            | В     | С     | Hole∟ | Thk <sub>AB</sub>    | %S.L. | D                  | Е     | Hole <sub>H</sub> | Thk <sub>sH</sub> | %S.L |
| FMG/CU        | 4/16/2019 | G1       | 0.48         | 0.398 | 0.455 | 0.00  | 0.443                | 24%   | 0.520              | 0.520 | 0.00              | 0.505             | 13%  |
| FMG/CU        | 4/16/2019 | G5       | 0.47         | 0.435 | 0.370 | 0.00  | 0.423                | 27%   | 0.500              | 0.490 | 0.00              | 0.485             | 16%  |
| DC            | 4/22/2021 | G5       | 0.47         | 0.440 | 0.365 | 0.00  | 0.424                | 27%   | 0.5                | 0.49  | 0.00              | 0.486             | 16%  |
| DC            | 4/22/2021 | G1       | 0.48         | 0.395 | 0.460 | 0.00  | 0.444                | 23%   | 0.53               | 0.52  | 0.00              | 0.509             | 12%  |
|               |           |          |              |       |       |       |                      |       |                    |       |                   |                   |      |
|               |           |          |              |       |       |       |                      |       |                    |       |                   |                   |      |

 $\mathsf{Hole}_\mathsf{L}\text{-}\mathsf{Length}$  of hole in Bearing Area  $\mathsf{Thk}_\mathsf{BA}$  - Thickness in Bearing Area

 $\mathrm{Hole_{H}}$  - Height of hole in Shear Area  $\mathrm{Thk_{SH}}$  - Thickness in Shear Area

 $Thickness_{BA} = [("A" + "B" + "C")/3][20"-hole]/20" \\ Thickness_{SH} = [("A" + "D" + "E")/3][d"-hole]/d" \\ SectionLoss% = [Thickness_{Original} Thickness_{Average}]/Thickness_{Original} X 100 \\ \end{bmatrix}$ 

Note: For load rating purposes, apply overall web losses for a 3' length from the seat.

Created by Universal Document Converter

Sketch Description: 2021a (w\_overall shear).jpg

## Standard Photographs

